

Approved For Release 2009/01/05 : CIA-RDP80T00246A006400470002-8

25X1

Page Denied

Approved For Release 2009/01/05 : CIA-RDP80T00246A006400470002-8

CONFIDENTIAL

21 April 1959

25X1

Subject: Selected Coefficients and Costs of Construction**CONTENTS**

- I. Use of Materials per 100 m³ of housing.
- II. Use of Labor per 100 m³ of housing.
- III. Cost per m³ housing as calculated from above.

I. Coefficients of use of building materials in construction industry

1. Use of building materials for 100 m³ of apartment building in rough state: (walls and roof; without floors, fittings, plumbing, etc.)

Cement	2.8 tons	for 100 m ³ of apartment building
Bricks	7400 pieces	" " " " "
Steel	0.32 tons	" " " " "
Timber for scaffolding concrete work, etc.	0.07 m ³	" " " " "
Gravel	3.30 m ³	" " " " "
Sand	10.20 m ³	" " " " "

2. Use of building materials for 100 m³ of apartment building completely finished:

Cement	3.4 tons
Bricks	7500 pieces
Steel	0.35 tons
Timber for scaffolding etc.	0.085 m ³

3. The use of building materials for 1 million slots in 1957 prices accepting the cost of 1 room (that is 96 m³) = 40,000 slots or for 1 million slots about 25 rooms, or about 24,000 m³ of apartment building.

Cement	82 tons	1 million slots
Steel	84 tons	" " "
Bricks and substitute wall materials	180,000 units	" " "
Timber for scaffolding etc.	20 m ³	" " "

II. Expenditure of labor for 1 m³ of apartment building

1. Theoretical labor expenditure according to the official catalogue of norms and price lists, the expenditure of labor in man-hours as applied in planning by the State Economic Planning Commission:

CONFIDENTIAL

CONFIDENTIAL

	<u>1949</u>	<u>1956</u>
a) Construction work on building site	8.7	7.8
b) Installation work	1.7	1.2
c) Other auxiliary work outside building site	<u>0.6</u>	<u>1.0</u>
Total	11.0	10.0

2. Statistics on labor expenditures:

	<u>1956</u>	<u>1957</u>
a) Institute of Housing Construction		9.5
b) Main Statistical Administration	11.6	
c) Ministry of Construction		10.8

3. Actual labor expenditures taking into account some unfinished work, but excluding the plastering of facades:

<u>1957</u>	<u>1957</u>
8.0 - 8.5	11.0

In 1957 the work was of a lower quality compared to previous work, although they now have much better machinery and equipment. The share of net labor costs in the total costs of 1 m³ of housing construction (apartment building)

	<u>Prices</u>	
	<u>1956</u>	<u>1957</u>
Labor	14.8	11.8
Materials	61.0	64.4
Equipment	1.7	1.3
General costs	23.3	23.3

III. Prices and costs

A. Housing Construction

1. Price changes of construction materials

a) Accepting the price system of building materials of the year 1955 as 100

The prices of year 1956 amount	= 155
The prices of year 1957 amount	= 212

b) Accepting the price system of building materials of the year 1956 as 100

The prices of the year 1955 and previous years amount	= 61
The prices of the year 1956 amount	= 100
The prices of the year 1957 amount	= 137

2. Cost changes in labor

Cost of labor in 1955 accepted for	= 100
Cost of labor in 1956 accepted for	= 100
Cost of labor in 1957 accepted for	= 129

CONFIDENTIAL

CONFIDENTIAL**3. Prices of apartment buildings**

The prices of the year 1955 accepted for amount	= 100
The prices of the year 1956 amount to	= 142
The prices of the year 1957 amount to	= 158
The prices of the year 1958 amount to	= 165

B. Total construction-assembly production

1. Statistical multiplier of price increase of construction-assembly work for entire construction-assembly production (whole country).

- a) to convert 1955 to 1956 multiply by 1.29
 b) to convert 1956 to 1957 multiply by 1.16

2. Statistical multiplier of price increase of investment (includes construction-assembly work, machinery and equipment).

- a) to convert 1955 to 1956 multiply by 1.28
 b) to convert 1956 to 1957 multiply by 1.11

C. Cost of standard apartment

1. This apartment has a bathroom with semi-automatic gas heater, running cold water, electricity, plumbing, central heating or stoves, and cooking gas. These are 5 types of apartments, among them, type 2PK is about 45% of total. Two PK equals 2 rooms plus kitchen which has a usable area of between 42-50 m², the average being 44 m², making the cost of this apartment equal 100 per m², other apartments cost:

3 rooms + kitchen	52 - 56 m ²	- (96% - 90%)	average 93*
2 rooms + kitchen	42 - 46 m ²	- (102% - 98%)	average 100
1 room + kitchen	28 - 38 m ²	- (115% - 102%)	average 108
1 room (bathster or efficiency)	18 - 26 m ²	- (126% - 100%)	average 117

2. Cost of 1 m² of usable area of a type which has 2 rooms + kitchen in 1957 prices.
Selling price to "investor" 400 sl.

3. Cost of 1 m² of usable area of type above (in 2).
Selling price to "investor" 2,120 sl.

4. Cost of an apartment built by industrialized methods (1st grade - or only ceilings pre-fabricated) is higher than costs under traditional methods.

	<u>I</u>	<u>II**</u>
a) in 1956 prices costs are higher by	7%	10%
b) in 1957 prices costs are higher by	99%	20%

* Because there are less fixtures per unit.

** Grade II ceilings plus wall units. (out side wall)

CONFIDENTIAL

CONFIDENTIAL

5. Own costs of construction enterprise of 1 m³ of housing built in traditional methods excluding profit for the construction enterprise - (never more than 1% in calculation).

	<u>In 1956 prices</u>	<u>In 1957 prices</u>
Pure construction costs	191	274.0
Installations (sanitation, central heating, electricity)	42	45.0
General overhead costs (administration, etc.)	<u>72</u>	<u>78.0</u>
Total	305	397.0 al.

6. "Industrial" construction is from 7-80% more expensive and amounts for 1 m³.

	<u>In 1956 prices in altyra</u>	<u>In 1957 prices in altyra</u>
Total "industrial" Grade I	347	431
Total "industrial" Grade II	367	479

* This, cost does not include:

- a) Site preparation.
- b) Survey and geological tests.
- c) Designs and blue print costs and supervision by investor.
- d) Surroundings -- fences, gates, entrances, walks, etc. Landscaping, roads, trash, etc.

In addition to this EOR (Administration of Workers' Settlements -- Government investor) added 1% of \$ plus above or 1% of 400 al. (selling price, p. 3, para. 2) for utilities (public), for example; gas lines, water mains, sewage roads, etc.

25X1

CONFIDENTIAL